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BEFORE THE BOARD OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
IN AND FOR THE STATE OF UTAH

IN THE MATTER OF THE REQUEST FOR AGENCY
ACTION OF BILL BARRETT CORPORATION FOR
AN ORDER EXTENDING THE BOARD'S ORDERS
ENTERED IN CAUSE NOS. 139-8 AND 139-84
TO ESTABLISH SECTIONAL DRILLING UNITS
AND AUTHORIZE UP TO FOUR PRODUCING WELLS
PER SECTIONAL DRILLING UNIT SO ESTABLISHED
OR PREVIOUSLY ESTABLISHED FOR THE PRODUCTION
OF OIL, GAS AND ASSOCIATED HYDROCARBONS FROM
THE LOWER GREEN RIVER AND WASATCH FORMATIONS
UNDERLYING VARIOUS SECTIONS WITHIN
TOWNSHIPS 3 AND 4 SOUTH, RANGES 5 AND 7 WEST,
USM, DUCHESNE COUNTY, UTAH.

DOCKET NO. 2010-008 CAUSE NO. 139-85

TAKEN AT: Department of Natural Resources
1594 West North Temple, Room 1040
Salt Lake City, Utah
DATE: Wednesday, February 24, 2010
TIME: 9:21 A.M. TO 11:05 A.M.
REPORTED BY: Michelle Mallonee, RPR

[2]

APPEARANCES

BOARD OF OIL, GAS AND MINING:

Douglas E. Johnson, Chairman

Ruland J. Gill, Jr.

Jake Y. Harouny

James T. Jensen

Kelly L. Payne

Samuel C. Quigley

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Megan Depaulis - Board Attorney

[3]

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[5]

1 Docket No. 2010-008 Cause No. 139-85

2 Wednesday, February 24, 2010

3 (The proceedings began at 9:21 a.m.)

4 CHAIRMAN JOHNSON: Good morning. I'd like to
5 welcome everybody to the February 2010 hearing of the
6 Utah Board of Oil, Gas and Mining. We have three
7 docketed matters this morning. The first one is Docket
8 No. 2010-008 Cause No. 139-85 - In the Matter of the
9 Request for Agency Action of Bill Barrett Corporation for
10 an Order extending the Board's Orders entered in Cause
11 Nos. 139-8 and 139-84 to establish Sectional Drilling
12 Units and Authorize up to Four Producing Wells per
13 Sectional Drilling Unit so established or previously
14 established for the Production of Oil, Gas and Associated
15 Hydrocarbons from the Lower Green River and Wasatch
16 Formations underlying various Sections within Townships 3
17 and 4 South, Ranges 5 and 7 West, USM, Duchesne County,
18 Utah.

19 Mr. Donaldson, are you representing the
20 Petitioner?

21 MR. MACDONALD: Mr. MacDonald.

22 CHAIRMAN JOHNSON: Mr. MacDonald. We're going
23 to have problems with that today. We have Fred MacDonald
24 representing the representing the petitioner, and Fred
25 Donaldson representing the State.

[6]

1 MR. MACDONALD: Yes, Mr. Chairman.

2 CHAIRMAN JOHNSON: Thank you. I'm going to have
3 problems with it all day, so I apologize to both of you.

4 MR. MACDONALD: If you just say "Fred," we'll be
5 okay.

6 CHAIRMAN JOHNSON: Okay, Fred. Please go ahead.

7 MR. MACDONALD: Thank you. Mr. Chairman,
8 Members of the Board, Fred MacDonald with Beatty &
9 Wozniak on behalf of petitioner Bill Barrett Corporation.
10 Sometimes today I'll be referring to them as BBC.

11 With me today I have Mr. Clint W. Turner,
12 president of Turner Land Petroleum Services, Inc. He is
13 a contract landman for BBC. Mr. Greg Hinds, who is the
14 geologist and asset manager for the Uinta Basin of Bill
15 Barrett Corporation. Mr. Fred LeGrand, who is the senior
16 reservoir engineer for Bill Barrett Corporation. They
17 will be testifying today, and I ask that they be sworn in
18 at this time.

19 CHAIRMAN JOHNSON: Let's do that.

20 THE REPORTER: Will you raise your right hands.

21 You and each of you do solemnly swear the
22 testimony you are about to give will be the truth, the
23 whole truth, and nothing but the truth so help you God?

24 (The witnesses answered in the affirmative.)

25 MR. MACDONALD: Mr. Chairman, the resumes of all

[7]

1 three witnesses were submitted collectively in this
2 matter as Exhibit A. It should be noted that Mr. Turner
3 was previously recognized by the Board as an expert in
4 petroleum land management in the hearings in Cause
5 Nos. 241-02, 03, and 04. Mr. Hinds and Mr. LeGrand were
6 previously recognized by the Board as experts in geology
7 and petroleum engineering, respectively, at the hearing
8 on Cause No. 260-01.

9 Based on that exhibit, with the stipulation of
10 the Division, and in accordance with previous practice of
11 the Board, I ask that our witnesses be recognized as
12 experts in the fields of petroleum land management,
13 geology, and petroleum engineering, respectively, for
14 purposes of this cause.

15 CHAIRMAN JOHNSON: Mr. Donaldson.

16 MR. DONALDSON: We will stipulate to their
17 expertise.

18 CHAIRMAN JOHNSON: Does the Board have any
19 questions or any concerns?

20 Then we'll recognize your witnesses as experts
21 as you've asked.

22 MR. MACDONALD: Thank you, Mr. Chairman. I'd
23 also like to confirm that the Board received the
24 supplement to Exhibit D, which was the additional
25 certified mailings that was filed last week.

[8]

1 CHAIRMAN JOHNSON: Yes. I believe we got
2 that -- this package?

3 MR. MACDONALD: Yes.

4 CHAIRMAN JOHNSON: We got that this morning.

5 MR. MACDONALD: Finally, Mr. Chairman, I'd like
6 to confirm that it's acceptable for me to move for
7 admission of all the exhibits at the end of my
8 presentation-in-chief.

9 CHAIRMAN JOHNSON: That will be fine.

10 MR. MACDONALD: Thank you.

11 Members of the Board, Bill Barrett Corporation
12 is today, before you, seeking two-part relief. First, it
13 is seeking to extend the existing sectional spacing for
14 the Lower Green River/Wasatch production in the areas of
15 the Cedar Rim-Sink Draw and Western Altamont fields to
16 adjacent lands in township 4 South, Ranges 5 and 7 West,
17 which are currently unspaced and subject only to the
18 general well siting rule.

19 Secondly, it seeks extension of the Board's
20 recent Order for the Greater Altamont/Bluebell/Cedar Rim
21 and Sink Draw fields, allowing up to four producing wells
22 from the Lower Green River and Wasatch Formation to
23 adjacent lands which consist both of existing sectional
24 drilling units, and presuming the Board grants the first
25 relief requested, the newly established sectional

[9]

1 drilling sectional units, as well.

2 Addressing the first part, many of the subject
3 lands today are already comprised of sectional drilling
4 units established by the Board under the orders entered
5 in Cause Nos. 139-8 and 140-6, that were entered back in
6 the early 1970s.

7 BBC seeks to extend the 139-8 order to adjacent
8 areas which are currently unspaced. Extension of the
9 139-8 order was chosen because that particular order
10 contains a stratigraphic definition referencing Type
11 Logs, whereas the 140-6 order did not.

12 The testimonies and exhibits presented today
13 will reflect that the Lower Green River and Wasatch
14 formations constitute the same source of hydrocarbon
15 supply underlying the unspaced lands; and therefore,
16 those lands should be spaced on the same basis as the
17 adjacent lands. Spacing is an appropriate conservation
18 measure since, under the general well siting rule, Bill
19 Barrett could conceivably currently drill up to 16 wells
20 on the affected sections.

21 As to the second part of the relief requested, I
22 wanted to give you a little historical background. The
23 need for infill drilling throughout the Greater
24 Altamont/Bluebell/Cedar Rim-Sink Draw fields became
25 apparent as the fields developed. In 1985, the Board

[10]

1 entered its order in Cause No. 139-42, which is commonly
2 referred to as the A&R Order, which modified the 139-8
3 and 140-6 orders, among other orders, to allow a second
4 well on each sectional drilling unit. Then, as many of
5 you will recall, after an extensive two-day hearing in
6 late 2008, the Board entered its order in Cause No.
7 139-84, which is commonly referred to as the El Paso
8 Order, which again modified the 139-8 and 140-6 orders,
9 but only as to certain of the lands covered by that
10 order, to allow up to four wells on each sectional
11 drilling unit.

12 True and correct copies of the 138 and 139-84
13 orders were collectively submitted as Exhibit B, and will
14 be proffered into evidence at the conclusion of my
15 presentation-in-chief.

16 In addition, and in the interest of brevity, we
17 ask the Board to take judicial notice of the all of the
18 exhibits and testimony that were admitted into evidence
19 at the 139-84 hearing in late 2008, particularly as they
20 relate to the Western Altamont and Cedar Rim-Sink Draw
21 fields, rather than having BBC resubmit and reiterate the
22 same in this cause. For the record, those were exhibits
23 G-11, G-12, E-5, and E-49 through 65, among other
24 exhibits that were admitted into evidence in the Cause
25 139-84 hearing.

[11]

1 As I mentioned, only a portion of the lands
2 covered by the 139-8 and 140-6 orders were actually
3 addressed by the 139-84 order. Bill Barrett Corporation
4 is now seeking to extend that 139-84 order to both the
5 lands that were the subject to the 139-8 and 140-6
6 orders, but previously excluded, as well as to the lands
7 for which it seeks extension of the 139-8 order today
8 that are currently unspaced. As the testimony and
9 exhibits submitted today will reflect, the data collected
10 to date for the lands at issue today support the
11 commonality of the Lower Green River and Wasatch
12 Formation characteristics throughout. And therefore, the
13 Board's findings and conclusions set forth in the 139-84
14 order are equally applicable.

15 The requested relief is consistent with the
16 goals of the Utah Oil and Gas Conservation Act, and in
17 particular, allows uniformity in field development; it is
18 a proper and appropriate conservation step; and it is
19 also protective of correlative rights. It must be
20 particularly noted that the requested relief ensures that
21 the production interest owners in the currently unspaced
22 areas will receive the same benefits and rights as all of
23 the other owners within the Greater Altamont/Bluebell and
24 Cedar Rim-Sink Draw fields; namely, they will share in
25 production from each of the four authorized wells within

[12]

1 a section, rather than just the well located on the lands
2 in which they have their respective interests. The Board
3 has jurisdiction over this matter pursuant to Utah Code
4 Annotated Sections 40-6-5 subparagraph 3(b) and 40-6-6.

5 Notice was sent via certified mail, return
6 receipt requested, to all of the mineral, leasehold, and
7 production interest owners within the lands that are
8 currently unspace, and to all working interest owners
9 and operators within the remaining lands. And to the
10 governmental agencies having mineral jurisdiction over
11 any portion of these lands, including the Utah School and
12 Institutional Trust Lands Administration, the Bureau of
13 Indian Affairs, and the Bureau of Land Management as the
14 operational advisory agency to the Bureau of Indian
15 Affairs.

16 These mailings were sent to the parties at their
17 last address as disclosed by the relevant BIA, State, and
18 Duchesne County records. Several mailings were returned
19 as either undeliverable or due to the refusal by the
20 addressee to pick them up after attempted delivery by the
21 postal service.

22 The record will also reflect that Notice was
23 duly published on February 2, 2010, in the Uintah Basin
24 Standard, and on February 7, 2010, in the Salt Lake
25 Tribune and the Deseret Morning News.

[13]

1 The Division submitted a Staff Memorandum on the
2 request on February 10, 2010. In it the Division stated
3 that, so long as Bill Barrett met its statutory burden of
4 proof, it would recommend approval of the request. No
5 other objections or responses were received.

6 I'd now like to commence with my examination of
7 Mr. Turner.

8 CLINT W. TURNER, CPL,

9 Having first been duly sworn,
10 was examined and testified as follows:

11 DIRECT EXAMINATION

12 BY MR. MACDONALD:

13 MR. MACDONALD: Mr. Turner, would you please
14 state your name and address for the record?

15 MR. TURNER: Client W. Turner, 7026 South 900
16 East, Suite B, Midvale, Utah, 84047.

17 MR. MACDONALD: What is your relationship to
18 Bill Barrett Corporation?

19 MR. TURNER: I'm the contract land man handling
20 Bill Barrett's land affairs in the Uinta Basin.

21 MR. MACDONALD: And in particular, this
22 Blacktail Ridge area. Is that correct?

23 MR. TURNER: That's correct.

24 MR. MACDONALD: I'm going to show you what has
25 been marked Exhibit E, which appears on the screen behind

[14]

1 the Board -- or excuse me, Exhibit C, which it also
2 appears on the PowerPoint presentation behind the Board.
3 Was this prepared by Bill Barrett Corporation personnel
4 with your input and review?

5 MR. TURNER: Yes, it was.

6 MR. MACDONALD: Would you please explain to the
7 Board what this exhibit represents?

8 MR. TURNER: This exhibit represents all of the
9 mineral owners in the Blacktail Ridge area, along with
10 who the different operators are, unleased lands, and HBP
11 acreage.

12 MR. MACDONALD: Does it also reflect the status
13 of the existing spacing orders?

14 MR. TURNER: Yes, it does.

15 MR. MACDONALD: How was this exhibit prepared?

16 MR. TURNER: Myself or employees of mine did
17 extensive search in the records of the BIA, State of
18 Utah, and records of Duchesne County, looking for mineral
19 owners, lessors, operators. And then we compiled that
20 and turned it over to Bill Barrett personnel for the
21 making of the map.

22 MR. MACDONALD: Did you also review the various
23 support spacing orders?

24 MR. TURNER: Yes, I did.

25 MR. MACDONALD: Could you please explain to the

[15]

1 Board what the different colors and bordering represent.

2 MR. TURNER: Yes. The yellow dotted represents
3 tribal lands that are under lease to or subject to an
4 expiration agreement with Bill Barrett Corporation. The
5 solid yellow non-dotted represents fee or state lands
6 under lease to Bill Barrett. The purple or magenta
7 colors that you see there represents lands leased to
8 third parties. And the white represents unleased acreage
9 within the outline. However, I might make note that
10 there is an ongoing leasing program going on, and we're
11 securing leases in those sections all the time.

12 MR. MACDONALD: And since this exhibit was
13 submitted to the Board, some of those lands have already
14 been leased. Is that correct?

15 MR. TURNER: That is correct.

16 MR. MACDONALD: Could you please explain now the
17 borders, to the Board.

18 MR. TURNER: Okay. The blue outline you see
19 there -- I'm pretty shaky, so bear with me -- is the
20 outline of what BBC refers to as their Blacktail Ridge
21 area of interest. The red outline represents the portion
22 of the Blacktail Ridge subject to the 139-84 order. The
23 purple outline, over here, represents the subject lands
24 already subject to 139-8, 140-6, but is not subject to
25 the 139-84.

[16]

1 MR. MACDONALD: Okay. If I could stop you.
2 Also, there's an additional purple area up in this
3 corner. Is that correct?

4 MR. TURNER: That's correct. I missed that one.

5 MR. GILL: Question.

6 CHAIRMAN JOHNSON: Mr. Gill.

7 MR. GILL: Could you give a reference to the
8 closest community, so I can kind of get a visual picture
9 of it.

10 MR. TURNER: Duchesne City sits right there.
11 Duchesne is right there.

12 MR. GILL: Like Altamont. Is Altamont --

13 MR. TURNER: Altamont is way up here.

14 MR. MACDONALD: Again, Mr. Gill -- go ahead, Mr.
15 Turner. If you would please point out where the city of
16 Duchesne is at.

17 MR. TURNER: Duchesne City is right there.

18 MR. GILL: Okay. Got it.

19 MR. MACDONALD: All right. And there's one
20 other border to --

21 MR. TURNER: The green outline, down here in the
22 southeast corner and the southwest corner, represents the
23 subject lands that are currently unspaced, which Bill
24 Barrett is seeking the extension of the 139 order to
25 establish section drilling units.

[17]

1 MR. MACDONALD: Thank you. Now I'm going to
2 direct your attention to a pleading already on file in
3 this matter. This is a certificate of service that I
4 prepared and filed with the Board.

5 I'm going to ask you to look at this and see if
6 you recognize all these names. Do you?

7 MR. TURNER: Oh, yeah. Yes.

8 MR. MACDONALD: Who are those parties that are
9 represented on that certificate?

10 MR. TURNER: They're mineral and leasehold and
11 production interest owners within the green outline, down
12 in the corners there, that I referred to. They're not
13 currently subject to 1 -- and all working interest owners
14 and operators within the existing spaced area are not
15 currently subject to the 139-84 area. And the government
16 agencies have mineral jurisdiction within these two
17 areas.

18 MR. MACDONALD: And how were those names
19 addresses compiled?

20 MR. TURNER: These names and addresses were
21 searched in the records of the BIA, Dushesne County, the
22 State of Utah, over a two -- almost a three-month period
23 to make sure that we got them all, because there is a
24 vast amount of mineral owners there.

25 MR. MACDONALD: And that list was provided to me

[18]

1 right before the filing of the --

2 MR. TURNER: That's correct.

3 MR. MACDONALD: Like to direct the Board's
4 attention now what's been marked as Exhibit D for
5 purposes of this hearing. These are true and correct
6 copies of return receipts received by my office of the
7 mailing of the request, and of the mailings that were
8 returned to my office as either undeliverable to the last
9 addresses of record, and also the postal service status
10 inquiries as to mailings for which we neither received
11 the original mailing nor return receipt back. This was
12 supplemented last week to reflect the return receipts and
13 return mailings received after the exhibit filing
14 deadline of January 25. And again, I will proffer that
15 into evidence at the end of my presentation-in-chief.

16 Mr. Chairman, that concludes my examination of
17 Mr. Turner.

18 CHAIRMAN JOHNSON: Mr. Donaldson, do you have
19 any questions for Mr. Turner?

20 MR. DONALDSON: The Division has no questions.

21 CHAIRMAN JOHNSON: Does the Board have questions
22 for Mr. Turner? No.

23 Thank you, Mr. Turner.

24 MR. TURNER: Thank you.

25 MR. MACDONALD: Mr. Hinds will now begin his

[19]

1 testimony.

2 GREG HINDS,

3 Having been first duly sworn,
4 was examined and testified as follows:

5 DIRECT EXAMINATION

6 BY MR. MACDONALD:

7 MR. MACDONALD: Mr. Hinds, will you please state
8 your name and address for the record.

9 MR. HINDS: Gregory Hinds, 1099 18th, Suite
10 2300, Denver, Colorado, 80202.

11 MR. MACDONALD: And what is your current
12 position with Bill Barrett Corporation.

13 MR. HINDS: I'm the asset manager for Bill
14 Barrett Corporation's Uinta Basin assets.

15 MR. MACDONALD: And that area includes the
16 Blacktail Ridge area, of interest today?

17 MR. HINDS: Yes, it does.

18 MR. MACDONALD: And you are a geologist by trade
19 and education. Is that correct?

20 MR. HINDS: Yes.

21 MR. MACDONALD: All right. Would you please
22 provide a brief statement regarding the corporate and
23 bonding status of Bill Barrett Corporation?

24 MR. HINDS: I'm supposed to do that?

25 Yeah, we are a Delaware-based corporation. I

[20]

1 believe we're fully capable and bonded in the state of
2 Utah to operate.

3 MR. MACDONALD: All right. And you are in good
4 standing with the State of Utah's Corporate Division's --

5 MR. HINDS: Yes.

6 MR. MACDONALD: Okay. Now, turning to the
7 geology, could you please provide to the Board a summary
8 of your understanding of the Board's previous filings
9 about the geology of the Lower Green River-Wasatch
10 formations in this area, whether you concur with those
11 findings, and if there is any additional preliminary
12 geologic comments you would like to make to the Board.

13 MR. HINDS: I do concur with everything that was
14 done on the El Paso docket from December of 2008.

15 I can provide a brief overview of some of what
16 they did, as well as just general geology pertaining to
17 the late Cretaceous, early Tertiary periods out here, if
18 you guys would like. It will be brief.

19 MR. JENSEN: I wouldn't mind a five-minute
20 overview.

21 MR. HINDS: Okay. I can do that.

22 Late Cretaceous time out here, the general
23 depositional -- or the dominant depositional sequence was
24 related to the late Cretaceous seaway. Toward the end of
25 late Cretaceous, that seaway was regressing to the east.

[21]

1 You had the Sevier highlands to the west of that,
2 shedding sediments into that system. At about late
3 Cretaceous time you had movements of the Laramide orogeny
4 and structural elements formed in the area, primarily the
5 San Rafael Swell to the southwest of the area we're
6 talking about, Uintah mountains or Uintah highlands to
7 the north of the area we're talking about, and a
8 reactivation of the Uncompahgre uplift southeast of the
9 area we're talking about. As a result of this, an
10 intermountain isolated basin began to form, which is
11 subsequently now the Uinta Basin.

12 Early on in that deposition you had primarily
13 alluvial and fluvial sediments; therefore, river-derived,
14 and things like that, derived sediments shed on a broad
15 plane from the south and a very steep plane from the
16 north into this area. This formation is termed the Lower
17 Wasatch North Horn Formation. You'll see more about this
18 during my testimony.

19 Following that, a lake formed within this
20 subbasin area called -- originally termed Lake Flagstaff.
21 It eventually became termed Lake Uinta. And it started
22 creating what's called lacustrine deposits or lake
23 derived deposits -- mainly carbonates, shales, and what's
24 called marlstones. Interfingering of these alluvial and
25 fluvial deposits of the -- called the Wasatch and the

[22]

1 marlstones, the shales and limestones of the Green River
2 formation, occurred both to the south and to the north of
3 the deeper parts of this lake. It's a very complex
4 stratigraphy. I'll touch more on it during my testimony.

5 And this lasted through the late Cretaceous
6 period and into the early Tertiary periods, primarily the
7 Paleocene and the Eocene epochs. And that's basically
8 what we'll be talking about, the Lower Green River and
9 the upper part of the Wasatch today.

10 MR. MACDONALD: All right. Again, summarizing
11 some of the findings for the Board, would you please
12 confirm that these are also your understanding, as well,
13 that the Lower Green River and Wasatch form a highly
14 complex series of isolated and discontinuous beds that
15 are randomly distributed vertically over several thousand
16 foot intervals, right?

17 MR. HINDS: They do.

18 MR. MACDONALD: And that they generally are not
19 correlatable from well to well and do not afford
20 communication between wells within several hundred feet
21 of one another. Is that correct?

22 MR. HINDS: Yes.

23 MR. MACDONALD: All right. I'm now going to
24 show you what have been marked as Exhibits E, F, and G,
25 for purposes of this hearing. Do you recognize these

[23]

1 exhibits?

2 MR. HINDS: I do.

3 MR. MACDONALD: Were they prepared by you or by
4 BBC personnel with your input and review?

5 MR. HINDS: By me and BBC personnel under my
6 direction.

7 MR. MACDONALD: Now, directing your attention to
8 Exhibit E, which is shown on the PowerPoint screen behind
9 the Board. Would you please explain to the Board what
10 this represents?

11 MR. HINDS: This is a Type Log. It's from the
12 Shell-Ute 1-18-B5, Township 2 South, Range 5 West,
13 Section 18. This was first put forth as a Type Log in
14 Docket 139-8 in 1972. And I go in -- do you want me to
15 go in and start describing?

16 MR. MACDONALD: Yeah, just a little bit.

17 MR. HINDS: The lands that we are -- or the
18 vertical section that we're seeking in this docket are
19 shown here in red, this being the Wasatch -- here, and
20 this being the Lower Green River -- here.

21 I'll start from the bottom. You have about
22 5600 feet of Wasatch section shown here. The lower part,
23 right here, is called -- is part of the North Horn. The
24 actual top of the North Horn is shown right here. What
25 you have here are very isolated sand bodies, 10 to

[24]

1 20 feet thick, in general. And these are representative
2 of fluvial-type deposition -- broad plane, large
3 meandering streams, isolated sand bodies. Just above
4 that, in this area right here, is when you first start to
5 see the inclusion of Lake Uinta. These are open
6 lacustrine-type deposits, the deeper part of the lake,
7 where you had mainly shales, carbonates and marlstones
8 deposited.

9 Above that, in the upper part of the Wasatch you
10 start to get into marginal lacustrine-type deposits, as
11 seen here. You start to see more interbedded sandstones
12 within those shales and limestones and marlstones. And
13 these are deposits that were on the periphery of this
14 lake, sitting in between the deeper parts of the lake and
15 the alluvial deposits coming down from the structural
16 elements to the south and to the north. You start to see
17 more of the alluvial deposits in the upper part of the
18 Wasatch seen here. You start to see more sand bodies.
19 And then you start into the Lower Green River formation.

20 What you have here is a very cyclic series of
21 deposits related to the expansion and contraction of that
22 lake during Lower Green River time. There's a number of
23 members here. The top of the Green River is defined by a
24 marker called the TGR3. There are several markers in
25 this section that are very correlative across the entire

[25]

1 area, and that's due to very rapid changes in the rise
2 and fall of the lake. But for the most part, you have
3 very discontinuous, non-correlative-type beds when the
4 lake was pretty much static.

5 There are a number of members in the Lower Green
6 River. This TGR3 is actually called the Garden Gulch
7 member, Douglas Creek member, Black Shale member, Castle
8 Peak member, and Uteland Butte member. Each one of these
9 members represents a subtle change in the depositional
10 environment, primarily between open lacustrine
11 environments and marginal lacustrine environments.

12 MR. MACDONALD: Now I'm going to direct your
13 attention to Exhibit F. Would you please explain to the
14 Board what this exhibit represents?

15 MR. HINDS: It's a well location map. And it
16 primarily shows the line of cross section here that I'm
17 going to use in the next exhibit. This line of cross
18 section does proceed through -- starts over here on the
19 west -- through the lands associated with this docket,
20 then it crosses through the southern part of the El Paso
21 docket from 2008. Couple of wells touching the lands for
22 this docket on the southeast side, and then it runs north
23 through more of the El Paso docket lands. And then it
24 ties up here to the north into the type well I just
25 described.

[26]

1 MR. MACDONALD: So the well to the north is the
2 stratigraphic definition in the Type Log you just
3 addressed in Exhibit E. Is that correct?

4 MR. HINDS: It is.

5 MR. MACDONALD: All right. Now I'm going to
6 direct your attention to Exhibit G. And would you please
7 explain to the Board what that represents.

8 MR. HINDS: This is a stratigraphic cross
9 section, the outline of which was just described on the
10 previous exhibit.

11 Couple of things to point out real quick. This
12 is our scale bar, right here. Each tic represents
13 250 feet, so that's a 500-foot section right there.
14 Difficult to see at this scale. But the depth tracked --
15 the numbered sections represent 250 feet, so you are
16 looking at quite a bit of section here. There are nine
17 wells in the cross section running from, roughly,
18 southwest to northeast. This is the Shell-Ute 118 that
19 was just described as the Type Log. You can see that
20 it's the deepest well on the Type Log. There's not a lot
21 of really, really deep wells that cover the entire
22 section we're talking about today.

23 Once again, I'll kind of start at the bottom and
24 work my way up. Here's that North Horn section,
25 previously described. As you see, we don't have a full

[27]

1 section in any other wells on the cross section. This is
2 the Upper Wasatch, or more definitively termed the Colton
3 Formation. Right here it is about 5600 feet thick and
4 remains fairly consistent across the cross section.

5 We have another couple of more wells that define
6 the entire section over here, and it ranges roughly from
7 about 5100 to 5600 feet. So it remains relatively
8 consistent in a gross sense across the entire area.

9 The Green River, the upper part right here, is
10 about 2500 feet thick and is very consistent across the
11 entire section, as well.

12 Starting from the bottom again, here are these
13 alluvial and fluvial sediments of the Lower North Horn
14 section. We really don't see a whole lot of those in any
15 other parts of the cross section, but you can see an
16 increase in the resistivity, right here.

17 Let me go and describe, real quick, what we're
18 looking at on each of these well tracts. I got ahead of
19 myself there. This left tract is a gamma ray log. And
20 what it's primarily used for is facies interpretations
21 and rock types.

22 When you see more yellow on the cross section of
23 lower gamma ray, because the scale runs from left to
24 right, you are generally talking about a more sandy
25 interval. The grayish areas with the higher gamma ray

[28]

1 amounts are generally more shales, carbonates, and
2 marlstones, as I described previously.

3 So down here you are seeing, like I stated, a
4 number of isolated sand bodies in the lower part of the
5 North Horn, where you had that broad plain of meandering
6 deposition, isolated sands, fluvial point bars, things
7 like that. We actually had that over here, as well. You
8 can see that this resistivity starts to increase --
9 starts to increase there. So that's our definition of
10 the North Horn.

11 As you work your way up, you start to see a more
12 shalier, grayer area here, where you started to have more
13 of the lacustrine, or late deposition. You can see that
14 that is fairly consistent from our type well over in the
15 lower parts of these two wells, where you had that full
16 section. And you can start to see it show up in part of
17 this well, as well. So that lacustrine deposition of the
18 open lacustrine environment is fairly consistent across
19 there.

20 Above that, as stated, you start to get into
21 marginal lacustrine. These are the areas that are
22 adjacent, or sit between the deeper parts of the lake and
23 the alluvial or fluvial sections more inland or more
24 landward. And you see that that is fairly consistent
25 across the entire cross section, right through here.

[29]

1 You see a higher concentration of sands, right
2 through this area right here. There you had a pulse of
3 more alluvial-type deposition, primarily shed from the
4 Uinta highlands off to the north. And you see a higher
5 sand content.

6 And then above that, you can see we go back into
7 a more grayish area, where you had primarily more
8 lacustrine deposition, and probably open lacustrine
9 deposition, when the lake expanded during that time.

10 Then you start to get into the upper part of the
11 Lower Green River. Right here, you can see it's a very
12 intermixed section of the yellow sands and the gray
13 shales and marlstones. We went back into a contraction
14 of the lake, and in this area you were having deposits of
15 the more peripheral lacustrine-type deposits here. This
16 is between the deeper and the shallower sections, or the
17 alluvial sections.

18 Something that might be of question is our
19 Wasatch top, right here. It is generally considered that
20 the alluvial deposition is Wasatch in nature, and most of
21 the lacustrine deposition is Green River. So you have an
22 intermixing of two formations in this area. You actually
23 have a pulse of the more alluvial section, right in here,
24 breaking apart your lacustrine deposition, here and
25 around the sides here. That really goes to the nature of

[30]

1 how complex the lithologies are in this area. Generally
2 on a stratigraphic section, as shown here, the Wasatch
3 sits below the Green River. But they are intermixed in
4 this area. They are laterally equivalent depositional
5 environments.

6 So as you take this cross section off to the
7 north, you would see a big increase in sand off into the
8 Altamont/Bluebell area. But down here, we're just on the
9 marginal or distal ends of these alluvial pulses, and we
10 have a very complex interfingering of the lacustrine and
11 the alluvial depositional environments here.

12 What I want you to take away from this cross
13 section is the consistency across it of these various
14 environments, primarily this open lacustrine environment,
15 right here. It is consistent all the way from here, over
16 into this area at the bottom part of the upper part of
17 the Wasatch. Then you see the higher sandy content area,
18 right here, and it is consistent across the cross
19 sections seen here. And then you get back into an open
20 lacustrine environment, and you can see that it is
21 consistent across the cross section. And then the
22 marginal lacustrine environment is consistent across the
23 entire cross section.

24 The point being, that we have the same geology
25 in the lands we're applying for today that were done back

[31]

1 in the -- that were applied for in the El Paso docket in
2 2008. So generally, we've got the same geology, and
3 we've probably got the same hydrocarbon pools, as well.
4 And that's what I really want to put forth in this cross
5 section testimony.

6 MR. MACDONALD: And just to clarify, you had an
7 opportunity to review all the geologic exhibits in the El
8 Paso hearing, did you not?

9 MR. HINDS: I did.

10 MR. MACDONALD: And it is your opinion that
11 those are analogous and consistent with what you are
12 showing here to the Board, as well. Is that correct?

13 MR. HINDS: They are.

14 MR. MACDONALD: Okay. Could you just briefly
15 address from the geologic standpoint, what are the
16 factors that would support BBC's allegation that two
17 wells won't necessarily drain a section in this area.

18 MR. HINDS: The sand bodies, the completed
19 sand -- or the completion intervals that we chase -- and
20 you can see these are completions in black, shown here --
21 are very isolated, primarily sands. There are some
22 isolation fractured carbonates that we end up completing,
23 but they are not correlative from well to well and
24 current spacing. So therefore, it does not appear that
25 two wells will drain an entire section.

[32]

1 MR. MACDONALD: And that's consistent with what
2 the Board's findings were in the El Paso Order. Is that
3 correct?

4 MR. HINDS: It is.

5 CHAIRMAN JOHNSON: Mr. Harouny, do you have a
6 question?

7 MR. HAROUNY: I do have a couple questions.
8 No. 1 question was: When you are comparing this cross
9 section to El Paso's cross sections, are you also
10 referring -- are you also comparing the areas to the
11 south that are not currently spaced?

12 MR. HINDS: Are you talking about the two areas
13 on the southwest and the southeast under general well
14 siting?

15 MR. HAROUNY: Correct.

16 MR. HINDS: Yes. Yes, this cross section went
17 through both of those areas. And I am making that
18 comparison.

19 MR. HAROUNY: And do you have any control points
20 in the south to -- are any of these wells -- we don't
21 have a map of where these wells are, so -- in your
22 drawing, so.

23 MR. HINDS: Exhibit F was a map, and you can see
24 we have that well, right there, that sits in the general
25 well siting area. We have this well, right here, that

[33]

1 sits in the general well siting area. This well, right
2 here, sits in the two-well-per-section, and these two
3 wells sit in the two-well-per-section. So yes, this
4 cross section does run through the lands that we are
5 applying for today.

6 MR. HAROUNY: The questions that I have on the
7 bottom wells, are they close to or adjacent or near the
8 Brundage Canyon field.

9 MR. HINDS: Brundage Canyon sits roughly 10 or
10 15 miles to the southeast of this area.

11 MR. HAROUNY: And the reason that you've
12 included the TGR3 to the base of Uteland Butte, and a
13 spacing order, is to maintain a general --

14 MR. HINDS: To maintain consistency --

15 MR. HAROUNY: -- uniformity?

16 MR. HINDS: -- yes.

17 MR. HAROUNY: Okay. Because, obviously, that
18 interval is spaced differently in the Brundage Canyon
19 area.

20 MR. HINDS: Right.

21 CHAIRMAN JOHNSON: Mr. Gill.

22 MR. GILL: The drilling of additional wells
23 really comes down to what parts of the well you perforate
24 for production purposes. My question is -- general
25 category is -- please educate me for just a minute.

[34]

1 I'm looking at where the wells were perforated,
2 and I can't find a correlation in some of the wells, why
3 they would perforate where they did in relationship to
4 the information you've just provided. And I'm sure the
5 technology is better today. But would you just educate
6 me, and maybe other members of the Board, why the
7 perforations are where they might be or where they are?

8 MR. HINDS: I can't speak for some of the wells
9 that were done in the 70s, and things like that, by other
10 operators. And I guess primarily shale, here; in this
11 open lacustrine environment, right there; the Koch well,
12 right here; the very large perforated interval in the
13 upper part of the North Horn. The wells that we've done
14 over the past several years, that sit on this cross
15 section, are these three, right here. And you can see we
16 are --

17 MR. GILL: Would you identify those for me?

18 MR. HINDS: Here, this is the Bill Barrett
19 Corporation 14-7, Bill Barrett Corporation 7-8, and Bill
20 Barrett Corporation 1-5. I can speak definitively to
21 those three. And you can see where our perforations
22 generally lie -- the upper part of the Wasatch, or Colton
23 Formation, and then the lower part of the Lower Green
24 River Formation. That is where we see the most potential
25 in this area.

[35]

1 Generally, we have what is considered about six
2 to eight stages, and that's where we will go in and
3 artificially frac the reservoirs. A lot of these wells
4 were not fracked back in the day, back in the 60s, 70s,
5 and 80s. They were acidized, but not hydraulically
6 fracked with sand. And that's what we do to try to
7 increase production and make a better well.

8 Generally we'll have six to eight of these
9 stages. Within each of these stages, we will perforate
10 anywhere from three to six individual intervals, and then
11 frac those intervals. And we'll move our way up the hole
12 until we've done about six or eight of these frac jobs,
13 and then we'll put the well on production.

14 MR. GILL: Can you isolate those frac zones?

15 MR. HINDS: Yes, you can isolate those frac
16 zones with plugs.

17 MR. GILL: And then, just as a general
18 information question, what percentage of your drilling
19 costs end up being spent in fracturing?

20 MR. HINDS: The completions here are expensive.
21 I'd say two-thirds to three-quarters of our drilling
22 completion costs are on the completion side. You are
23 talking \$4 million wells.

24 MR. GILL: Of that \$4 million well, how much
25 were you fracking?

[36]

1 MR. HINDS: Well about two-thirds, so
2 three-quarters, so you're looking anywhere from about 2.7
3 to \$3 million.

4 MR. GILL: More than 100 percent?

5 MR. HINDS: No, less than 100 percent. It's a
6 \$4 million well, 2.7 to \$3 million is in completion.

7 MR. GILL: Okay. So the total costs could be
8 6 million.

9 MR. HINDS: No. The total cost is four million.

10 MR. GILL: What am I missing here?

11 MR. HINDS: The drilling portion is around
12 800,000 to a million, the completion portion is 2.7 to
13 3 million.

14 MR. MACDONALD: Two-thirds of the total drilling
15 costs, is what he's saying.

16 MR. HINDS: Two-thirds of the total --

17 MR. GILL: Just for the cost for the rig and to
18 drill it, the depth?

19 MR. HINDS: The cost for the rig and to just
20 drill the well is about a million dollars. To case it
21 and complete it is about 3 million.

22 MR. GILL: Okay. That surprises me that it's
23 that extensive.

24 MR. HINDS: It's not cheap.

25 MR. GILL: I've heard it be in the 50 percent or

[37]

1 70 percent. If we've got the terms understood now,
2 between the cost to drill the well and its -- my narrow
3 definition -- then the cost to frac it, give me the total
4 well costs, that really surprises me. The technology is
5 now to that point. That's -- okay. So I can see what
6 you're doing with your fracturing, then. I've got to
7 believe there's some science in that, as well.

8 MR. HINDS: There is.

9 MR. GILL: What works, what doesn't. Maybe in
10 future wells. Thank you. You answered my question.

11 MR. HAROUNY: I've got a question for you.

12 In the north part of the Colton Formation, are
13 you only targeting sands?

14 MR. HINDS: No. We tried to identify some of
15 the interbedded fractured limestones. You know, there
16 are some of those, and if they're fractured they can be
17 quite prolific. They're very limited fracture sets, so
18 they don't go very far. But we will target some of the
19 fractured limestones, as well.

20 MR. HAROUNY: And your frac jobs are designed to
21 differentiate between the limestone, the carbonates, et
22 cetera, et cetera, and sands?

23 MR. HINDS: No, the frac job really doesn't.
24 We'll still perforate anywhere from three to six
25 perforations within a frac stage. And once you frac into

[38]

1 those perforations, everything becomes connected -- the
2 sands, the limes.

3 MR. HAROUNY: Okay.

4 MR. GILL: Just another analogy for my
5 education. Take two hypotheticals. One is, you're
6 drilling into a bowl of potato chips where a well will
7 hit a potato chip or not. The other one is where you are
8 going into a bowl full of tortillas, where it's
9 continuous but very thin across.

10 MR. HINDS: That's a big tortilla.

11 MR. GILL: What's that? And so is this a potato
12 chip field or is this a tortilla field?

13 MR. HINDS: This is mainly a potato chip field.
14 Your potato chips are your expensive, thick kind, down
15 here in the North Horn. And then you got your cheap
16 kind, very thin, very small, isolated up here in the
17 Upper Wasatch and Lower Green River.

18 MR. GILL: Thank you.

19 CHAIRMAN JOHNSON: Any other questions for
20 Mr. Hines?

21 MR. MACDONALD: I've got to remember that
22 analogy sometime.

23 Okay. Mr. Hinds, then, in conclusion of your
24 testimony, is it your expert opinion that the Lower Green
25 River/Wasatch Formations constitute a common source of

[39]

1 hydrocarbon supply for the subject lands?

2 MR. HINDS: Yes.

3 MR. MACDONALD: And that no less than two, and
4 in most cases up to four wells per section will be
5 necessary to drain and recover the hydrocarbons from a
6 geologic standpoint?

7 MR. HINDS: Yes.

8 MR. MACDONALD: That concludes my testimony of
9 Mr. Hinds.

10 CHAIRMAN JOHNSON: Mr. Donaldson?

11 MR. DONALDSON: Yeah. The Division does have a
12 question.

13 CROSS-EXAMINATION

14 BY MR. DWORSHAK:

15 MR. DWORSHAK: Clint Dworshak for the Division.

16 Mine is more of a clarification, and it's on
17 your Type Log. If we could go back to that. You've
18 highlighted your proposed spaced area of the TGR3 marker
19 and the Cretaceous. What we'd like to see tied into that
20 are footages to the wellbore, which we believe would be
21 necessary later for correlation purposes. I don't know
22 if you have those with you right now, but it's something
23 that would be necessary.

24 MR. HINDS: Well, the base of the area -- that's
25 16,720 feet measured depth. I don't have the exact

[40]

1 measured depth of that TGR3, offhand. And that 16,720
2 feet was defined in '72, here in 139-8.

3 MR. DWORSHAK: Great. So you're tying it in
4 to what was defined there.

5 MR. HINDS: Yeah. We're using the exact Type
6 Log that they used and haven't changed anything.

7 MR. DWORSHAK: Excellent.

8 MR. MACDONALD: Also from a legal standpoint, if
9 you look at Exhibit B in the 139-8, this is the exact
10 definition that was utilized there. Unfortunately, the
11 TGR3 was not defined specifically by depth. It was the
12 base that was defined.

13 CHAIRMAN JOHNSON: Any other questions?

14 MR. DWORSHAK: No.

15 CHAIRMAN JOHNSON: Mr. Donaldson, any other
16 questions?

17 MR. DONALDSON: No more questions for this
18 witness.

19 CHAIRMAN JOHNSON: Mr. Harouny, do you have a
20 question?

21 MR. HAROUNY: I have one last question that has
22 to do with spacing.

23 Are you -- or should you become interested in
24 the future in any of the Horizon's -- say in Parachute
25 Creek, Evacuation Creek, any of the members above the

[41]

1 Douglas Creek -- are you going to be spacing those
2 differently, or are expanding your current spacing? Do
3 you foresee expanding your current spacing?

4 MR. HINDS: The vertical, I would see as coming
5 back. If we wanted to move above the Lower Green River
6 or the TGR3 up into the Upper Green River part, we would
7 come back and expand it virtually.

8 MR. HAROUNY: And my second question to you is
9 that the Upper Green River, the Green River Formation all
10 the way down to Uteland Butte, does have quite a bit of
11 continuity laterally pervasive, if you will, throughout
12 this area of the basin. It lends itself to secondary
13 recovery a whole lot better than Wasatch, in some cases.

14 Would you be spacing that separately if there
15 were any type of secondary recovery?

16 MR. HINDS: Any thoughts of waterflood or
17 anything in the future?

18 You would. I think we would have to come back
19 and space the number of wells per section on a much
20 higher density. Because you can't waterflood with four
21 wells in a section, especially on these types of
22 reservoirs.

23 The continuity that I see is mainly in these
24 markers where you saw rapid changes in the lake levels,
25 and you saw a quick lay-down of a very consistent bed.

[42]

1 There are a few of those. Primarily that TGR3 is one.
2 There's one called a Three Point, which we've got defined
3 on this cross section, as well. But within the specific
4 members of the Green River, it's very heterogeneous.

5 MR. HAROUNY: So there would have to be a
6 separation of the current order down the road, if there
7 were any kind of contemplation of enhanced recovery?

8 MR. HINDS: Exactly.

9 MR. MACDONALD: Again, Mr. Harouny, from a legal
10 standpoint, the statutory requirements for secondary
11 enhanced recovery under a separate statute would require
12 unitization and approval by the Board.

13 MR. HAROUNY: I understand that.

14 CHAIRMAN JOHNSON: Any other questions?

15 Thank you, Mr. Hinds.

16 MR. MACDONALD: Like to commence our examination
17 of Mr. LeGrand.

18 FREDRICK P. LEGRAND,
19 Having been first duly sworn,
20 was examined and testified as follows:

21 DIRECT EXAMINATION

22 BY MR. MACDONALD:

23 MR. MACDONALD: Mr. LeGrand, would you please
24 state your name and address for the Board.

25 MR. LEGRAND: Fredrick P. LeGrand, 1099 18th

[43]

1 Street, Suite 2300, Denver, Colorado, 80202.

2 MR. MACDONALD: What is your current position
3 with Bill Barrett Corporation?

4 MR. LEGRAND: I'm an advisory reservoir engineer
5 for Bill Barrett Corporation. And I'm responsible for --
6 primarily for the Uinta Basin, and in particular for the
7 Blacktail Ridge area.

8 MR. MACDONALD: Thank you. I'm going to ask you
9 a similar question to Mr. Hinds that -- would you please
10 first summarize your understanding of the Board's
11 previous findings regarding the reservoir characteristics
12 for the Lower Green River Wasatch Formation, particularly
13 in the 139-84 order, whether you concur with those
14 findings, if there is any other preliminary reservoir
15 characteristic comments you would like to make.

16 MR. LEGRAND: Okay. The Board previously found,
17 with respect to the lands covered by 139-84, that virgin
18 pressure, and/or near virgin pressure zones exist within
19 the application geologic interval after significant
20 production has been extracted from the reservoir by the
21 original or legacy wells.

22 Drilling of second, third, and fourth wells
23 within a section approximating 160-acre drainage results
24 in economic recovery of reserves and resources which
25 would otherwise remain unrecovered.

[44]

1 MR. MACDONALD: And you concur with those
2 findings?

3 MR. LEGRAND: I do concur with those findings
4 and have reviewed them.

5 MR. MACDONALD: Now I'm going to show you what
6 have been marked as Exhibits H through M for purposes of
7 this hearing. Were these exhibits prepared by you, or
8 BBC personnel with your input and review?

9 MR. LEGRAND: Yes, they were.

10 MR. MACDONALD: First, directing your attention
11 to Exhibit H, which again appears on the screen behind
12 the Board on the PowerPoint presentation. Would you
13 please explain to the Board what this represents?

14 MR. LEGRAND: I will. And just before I do
15 that, let me just say this: That I'd like to make a
16 couple of definitions so we eliminate any kind of
17 ambiguity.

18 When I refer to "application lands" or
19 "application wells," I am referring to those lands or
20 wells that are covered under 139-85 that we are here
21 discussing today. When I refer to "previous application
22 lands or wells" or "El Paso lands or wells," I am
23 referring to lands or wells that were covered under the
24 previous application, 139-84. So with that in mind,
25 let's move forward on the six exhibits. And we'll start

[45]

1 with Exhibit H.

2 Exhibit H is a listing of all of the wells,
3 drilled or productive, on the application lands. There
4 are 36 wells which have been drilled on these lands. The
5 locations of these wells are indicated on the exhibit --
6 section, township, and range -- as well as the cumulative
7 oil, gas, and water production through December of 2009.
8 Just to note here, a total of about 2.25 million barrels
9 of oil and 3.8 billion cubic feet of associated gas have
10 been produced from these wells, along with about 2.7
11 million barrels of formation water. Most of the wells
12 were drilled in a period from 1960 through about the mid
13 80s. And therefore, the cumulative production that
14 you'll see represented on Exhibit H is representative of
15 the estimated ultimate recoveries of these wells.

16 Two of the wells are an exception to this. They
17 were drilled by BBC in 2008. And these two wells have
18 cumulative production -- on the exhibit indicated -- only
19 from a 30-day or less production test which was conducted
20 on the wells subsequent to initial completion. The
21 reason that these two wells were only tested is because
22 we are waiting on a gas gathering line to be installed in
23 the area. And we are we expect that to occur in --
24 actually, almost as we speak, here in April -- or in
25 April of this year. These two wells, specifically, are

[46]

1 the Blacktail Ridge 1-5-45 and the Blacktail Ridge
2 7-8-45. That's just to eliminate any kind of confusion
3 associated with them.

4 Fourteen of the wells within this group of wells
5 have achieved simple payout based upon today's economic
6 conditions.

7 And finally, I just want to point out, the most
8 prolific well to date in this area, which is located off
9 to the -- in the west area of the application lands, is
10 the Sink-Draw No. 7. It has produced in excess of
11 426,000 barrels of oil, and it provides us with
12 significant support of the productive potential of the
13 application lands.

14 As was mentioned before in BBC's review of the
15 wells on Exhibit H, it's clear that the overwhelming
16 majority of these wells were completed with small acid
17 jobs, and with occasional diversion with the ball sealers
18 or benzoic acid plates.

19 As Greg has stated previously -- and we can
20 expand upon this if the Board so desires -- BBC has
21 revised that practice a bit, and we actually prop and
22 fracture stimulate our wells, and actually put a
23 significant amount of capital towards our completion.
24 This change in completion practices provides a basis for
25 improved production rates and improved ultimate

[47]

1 recoveries of the in-place hydrocarbons within the
2 application lands, as compared with what we are viewing
3 on Exhibit H.

4 Let's move on to Exhibit I, if there are no
5 questions.

6 MR. HAROUNY: Excuse me for one question. It
7 has to do with the two Blacktail Ridge that Bill Barrett
8 drilled. They have been shut-in for how long now?

9 MR. LEGRAND: They were drilled in 2008.
10 They've been shut-in for, you know, approximately, I
11 guess almost a year.

12 MR. HAROUNY: Okay. And the production is in
13 Exhibit H for those wells, correct?

14 MR. LEGRAND: That is correct.

15 MR. HAROUNY: And they're 30-day production for
16 each?

17 MR. LEGRAND: Yes, that's right. It's a
18 cumulative production from those two wells. One of them
19 was tested -- one of them was tested for about 30 days,
20 and the other for only about 11 days.

21 MR. MACDONALD: And there's an additional
22 exhibit that Mr. LeGrand will testify --

23 MR. HAROUNY: So you do have initial rates for
24 those?

25 MR. LEGRAND: Yes, I do. And I'll show you.

[48]

1 I'll show you that in a moment. Those two, actually, are
2 a couple of the key wells in this testimony.

3 MR. MACDONALD: Moving on to Exhibit I. Would
4 you please explain to the Board what this represents?

5 MR. LEGRAND: Exhibit I is an oil reserve size
6 distribution for 48 wells in the 3 South 6 West and 3
7 South 7 West areas within the previous application or El
8 Paso lands area associated with 139-84. The X axis is
9 the estimated ultimate gross oil reserves, and the Y axis
10 is cumulative probability. And the reason we just used
11 oil reserves here is, obviously oil is the primary
12 economic stream associated with these wells.

13 This exhibit demonstrates a couple of things.
14 First of all, mean gross oil reserves in this area that
15 is directly adjacent to the application area of about
16 287,000 barrels of oil per well. When we look at
17 development within a particular area, it is the economics
18 of the mean estimated ultimate recovery that dictate the
19 economics of the entire plan. So this is kind of a --
20 you know, this is a critical number for us.

21 I want to also point out the P85 gross oil
22 reserves of 75,000 barrels of oil. And this implies that
23 85 percent of the time, the oil reserves that were
24 recovered in the area in question were equal to or
25 greater than 75,000 barrels. The reason 75,000 barrels

[49]

1 is significant is, 75,000 barrels of oil plus the
2 associated gas is what is required to generate simple
3 payout on these wells under current economic conditions.

4 A couple of other things. Please note the large
5 range in outcomes that are possible in the lands adjacent
6 to the application lands that are shown on this
7 distribution. You know, this is something that we deal
8 with commonly. And as I've pointed out earlier, the
9 range may be large, but it's the mean that is critical to
10 us from an economic standpoint.

11 Please also note this, that estimated ultimate
12 reserves of less than 20,000 barrels have been excluded
13 from this plot. And the reason we've done that is,
14 including them is actually detrimental and misleading in
15 terms of a best-fit line through the data set. Exclusion
16 of these low potential outcomes does not have a material
17 effect upon this analysis.

18 The reserve side distribution establishes a
19 baseline expectation for Bill Barrett Corp. in its
20 evaluation of the offsetting application lands and wells.

21 Any questions about the reserve size
22 distribution?

23 MR. MACDONALD: Moving on to Exhibit J, would
24 you please explain to the Board what this represents.

25 MR. LEGRAND: Exhibit J is a map, and it

[50]

1 indicates the location of the wells which BBC has chosen
2 for production comparison between the application lands,
3 that are highlighted in purple and green, and the
4 previous application, or El Paso lands, which are
5 highlighted in red. Six wells are indicated on Exhibit J
6 by the blue diamonds, and I'll briefly review them.

7 Just as a note, the six wells were chosen on the
8 basis of proximity to the application lands, or
9 proximity -- or, I'm sorry, or as being a portion of the
10 previous application lands. And they are a subset of the
11 wells that are contained in the geologic exhibits. So we
12 chose to use a consistent dataset as we were moving
13 across.

14 So starting on the left-hand side of the exhibit
15 is a well that was previously mentioned. And it's the
16 Sink Draw No. 7, which is the highest estimated ultimate
17 recovery well in the application lands today.

18 Moving counterclockwise, the next well is the
19 Bill Barrett Corporation Blacktail Ridge 14-7-46 well,
20 which was drilled in 2008, and is currently indicating
21 overall reserve potential of greater than 750,000 barrels
22 of oil equivalent. This is a very, very large well for
23 us. What's critical about this well, obviously it's
24 cumed 134,000 barrels and 153 million cubic feet. And
25 it's still a flowing oil well. Although it is located on

[51]

1 the previous application lands, its proximity to the
2 application lands renders it a key well in establishing
3 continuity of production characteristics onto the
4 application lands, in particular to the south and to the
5 west.

6 The next two wells, as we move east, are the
7 previously mentioned Blacktail Ridge 7-8-45 and 1-5-45
8 wells, drilled by BBC in 2008 and production tested for
9 30 days.

10 And finally, as we move north on to the previous
11 application, or El Paso lands, there are two existing
12 producers that were also on the cross section, the
13 130-35, and the 129C5. And they're representative of a
14 productive capacity in this area of the field.

15 As I indicated, all the wells indicated have
16 been included on the geologic cross sections that were
17 submitted as exhibits by Mr. Hinds and supporting
18 geologic continuity for the area.

19 Are there any questions about the map?

20 Then we can move on to Exhibit K.

21 MR. HAROUNY: The two wells you are referring
22 to, are these the two wells you are referring to?

23 MR. LEGRAND: That is correct. Those are the
24 two that have only been production tested at this point
25 in time.

[52]

1 MR. HAROUNY: Now, what were the initial rates
2 on those.

3 MR. LEGRAND: I will show that to you in just a
4 moment. In the neighborhood of, you know, from about 3-
5 to 400 barrels a day, on an average during that test
6 period.

7 MR. MACDONALD: Moving on to Exhibit K, would
8 you please explain to the Board what this represents.

9 MR. LEGRAND: Okay. Exhibit K is a 36-month
10 cumulative production comparison for wells indicated on
11 Exhibit J. The X axis shows months of production, and
12 the Y axis shows cumulative oil production in barrels.
13 Since the 1-5-45 and 7-8-45 wells have only one month of
14 cumulative production or less, they've been excluded from
15 Exhibit K, and they'll be discussed on Exhibit L.

16 Examination of this exhibit indicates the
17 following: First of all, the solid lines -- the solid
18 lines that are green and a brown color and blue relate to
19 wells that are on the previous application lands.

20 MR. MACDONALD: El Paso lands?

21 MR. LEGRAND: That's correct, the El Paso lands.
22 The dashed gray line, that you see in the center there,
23 relates to the Sink Draw No. 7 well on the application
24 lands.

25 So a couple things we can see from this. First

[53]

1 of all, cumulative production trends are obviously
2 variable, and they range from over 350,000 barrels to
3 just over 150,000 barrels for the first 36 months for the
4 selected wells in this analysis. Obviously, as a side
5 note, if 75,000 barrels of oil generates simple payout,
6 these wells are well above -- are well above the economic
7 threshold for this particular area.

8 In addition, the cumulative production trend of
9 the new Bill Barrett Corporation 14-7-46 well, which is
10 directly adjacent to the application lands, is very
11 similar to that indicated for the Sink Draw No. 7 well,
12 which is contained on the application lands.

13 Exhibit K supports cumulative productivity on
14 the west and southwest portion of the application lands,
15 or very near to the application lands, to be of similar
16 magnitude to the previous application lands.

17 Did everyone understand what -- in other words,
18 we believe --

19 MR. MACDONALD: It's an appropriate analogy to
20 draw from the El Paso lands to the application lands.

21 MR. LEGRAND: That's correct.

22 MR. HAROUNY: May I offer a correction to this?

23 MR. LEGRAND: Yes.

24 MR. HAROUNY: Did you mean 130-C5 down here, the
25 well No. 130 --

[54]

1 MR. LEGRAND: No. It's actually listed as the
2 130-35, at least according to our records. But it is --
3 it is in the section directly adjacent to the 129, as is
4 indicated on the map.

5 MR. MACDONALD: Do you want to point which one
6 that is, Fred?

7 MR. LEGRAND: Well, it's difficult for me to see
8 it. But the two wells -- there is the C5, and there is
9 the 35 -- 35 indicating Township 3 South, Range 5 West.

10 MR. MACDONALD: Moving on to Exhibit L. Would
11 you please explain to the Board its significance?

12 MR. LEGRAND: Exhibit L is a plot of average
13 monthly barrels of oil per day on the Y axis, versus
14 months of production on the X axis. Again, the same
15 group of wells that was highlighted on Exhibit J have
16 been utilized for consistency. Just to point out the two
17 single data points relating to these initial 30-day or
18 less test rates associated with the 1-5-45 well and
19 7-8-45 well are shown, respectively, with red and black
20 single data points. You can see them there and there.

21 Again, these data support the following:
22 Initial production rate trends are variable and range
23 from nearly 500 barrels of oil per day initially, to just
24 below 300 barrels of oil for the selected wells in this
25 analysis. The Blacktail Ridge 14-7-46, highlighted in

[55]

1 brown, shows that production trends on the previous
2 application lands are similar to that of the Sink Draw
3 No. 7 well, which resides within the application lands --
4 and of course the Sink Draw No. 7 being the gray dashed
5 line.

6 Furthermore, initial productivity of the 1-5-45
7 is nearly identical to that of the 14-7 well. And this
8 is, you know, for this extended 30-day test on the well.

9 Finally, initial productivity of the 7-8-45 is
10 certainly within the range of expectation for the wells
11 selected for this production comparison. And you can see
12 its initial rate here, just above 250 barrels a day.

13 CHAIRMAN JOHNSON: Was that 250 barrels for 11
14 days or...

15 MR. LEGRAND: That's the average rate --

16 CHAIRMAN JOHNSON: Oh, per day.

17 MR. LEGRAND: -- for the -- per day for the 11
18 days, that's correct. In all cases, that's what this is.
19 It's the average monthly barrels of oil per day, that
20 expressed as barrels of oil per day.

21 CHAIRMAN JOHNSON: Okay.

22 MR. LEGRAND: From these data presented in both
23 Exhibits K and L, BBC has concluded that the production
24 characteristics of the selected wells in the previous
25 application lands, which are adjacent to the application

[56]

1 lands, are similar to production characteristics of wells
2 within the application lands.

3 Any questions about this exhibit?

4 Yes.

5 MR. QUIGLEY: Your Sink Draw No. 7 well, when
6 was that completed?

7 MR. LEGRAND: It's actually listed on Exhibit H.
8 Let me quickly find it here. 1974.

9 MR. QUIGLEY: 1974. So the comparison of it to
10 14-7 -- and this is just -- I'm just curious -- the
11 technology used in 14-7-46 was probably significantly
12 more advanced than --

13 MR. LEGRAND: Yes, it definitely was.

14 MR. QUIGLEY: Yeah. So those wells, because of
15 technology, probably don't really represent a real good
16 comparison, do they?

17 MR. LEGRAND: When we look at that area to the
18 west and we look at -- you know, there are two
19 outstanding wells in that area to the west. And when I
20 refer to the area to the west --

21 MR. QUIGLEY: You are looking at --

22 MR. LEGRAND: -- let's see. If we look at the
23 outline -- we're looking at the wells contained within
24 the purple outline --

25 MR. QUIGLEY: Yes.

[57]

1 MR. LEGRAND: -- to the west. There are two
2 significant wells there, both of which only received acid
3 stimulation. And when we look at that -- I look at that
4 area and I say that has outstanding potential. It has
5 potential, you know, on that basis very, very similar to
6 what has been experienced in 3 South 6 West. And had we
7 been able to make a completion similar to the completions
8 that we are doing today, we would have seen a
9 significantly better well.

10 MR. QUIGLEY: Right. So the comparison of the
11 production curve on those two wells is pretty hard,
12 because they were completed under different --

13 MR. LEGRAND: I agree with that. That's
14 correct.

15 MR. QUIGLEY: Thank you.

16 MR. LEGRAND: Okay.

17 MR. HAROUNY: Are we going to see some pressure
18 data also?

19 MR. LEGRAND: We have not prepared any pressure
20 data, and refer back to the pressure data information
21 that was presented in 139-84.

22 MR. MACDONALD: The El Paso pressure data. Some
23 of those include the lands -- like I said, these are some
24 of the Bill Barrett stuff. We don't have any --

25 MR. LEGRAND: I can verbally give you -- I'm

[58]

1 pretty familiar with the pressure data. I can verbally
2 give you a summary of that at the end, if you'd like.

3 MR. HAROUNY: It just dovetails into his
4 questioning about the original pressure of original well
5 producing and comparison of the original well to the
6 subsequent wells, you know. The original well has a huge
7 EUR based on virgin pressure and subsequent wells. Of
8 course, you have to -- you have to hit it with fabulous
9 technology to get the same rate out of it, or the same --
10 because of lack of pressure in the area. And the
11 question would be if there are significant implications
12 in the pressure -- the pressure draw down is different in
13 this area because this is the outpost, if you will. Some
14 of the El Paso things that were presented to us were
15 basically in the middle of the field. So this is the
16 outskirts, if you will.

17 MR. LEGRAND: Right. The pressure data that we
18 have gathered to date in the field -- in particular what
19 we've gathered is cased hole dynamic tester data, so we
20 can test an individual zone and determine its reservoir
21 pressure and determine the amount of depletion that has
22 occurred in areas that were previously developed. And we
23 did this in Sections 21 and 23 of 3 South 6 West.

24 MR. HAROUNY: That would very useful
25 information.

[59]

1 MR. LEGRAND: Oh, yeah. So let's see.
2 Twenty-one and twenty -- I'm having trouble seeing it.
3 Hang on a second.

4 MR. HINDS: That's 4-23, right there.

5 MR. LEGRAND: What we found is this: We know
6 what the baseline expected reservoir pressure is in a
7 particular zone. And that's known, based on a
8 significant amount of DST data that has been gathered and
9 was presented in the 139-84 El Paso hearing, as well as
10 mud weight data that was gathered and presented in that
11 same hearing. So we know what we expect. And what we
12 actually found between those two wells, we've got 19
13 valid points between the two wells. And of those 19,
14 five showed some level of depletion from offsetting
15 production. And that level of depletion was
16 approximately 26 percent, on the average. And so that's
17 very encouraging for us, from the standpoint of the
18 ability to, you know, the relatively small number of
19 zones that have seen some depletion. And that would be
20 more akin to your tortillas in the bowl, as opposed to
21 potato chips in the bowl, and those that are more potato
22 chip oriented and would be accessible on increased
23 density drilling.

24 We also believe that we have a -- you know, we
25 have an advantage. And, I mean, part of the reason that

[60]

1 we are expending as much money as we are on the
2 completion side is to extend the reach and to make it
3 easier for those zones that are less productive naturally
4 to flow into the wellbore and obviously allow us to
5 recover those reserves. That has generated for our
6 corporation, for the first seven wells that we infilled
7 in 3 South 6 West that we put extensive frac, you know,
8 frac work into, 950,000 pounds per well on average, and
9 about 8 1/2 stages per well on average, as Greg had
10 indicated. Even though these wells, for the most part,
11 were third wells in the section, the wells, on average,
12 recovered approximately 264,000 barrels of oil, and about
13 334 MBOEs, if we consider the associated gas. So for
14 second and, primarily, third wells in the section, that's
15 an outstanding outcome. And we believe that's directly
16 related to completion technology.

17 MR. HAROUNY: I agree with you fully. The issue
18 being is, the zones that are interconnected between the
19 zones that are represented in the whole entire section,
20 given the fracture orientation, be it east-west, or
21 north-south, if you look at a well -- four wells per
22 section, then you are going to see some form of drainage
23 and pressure depletion from the zones that are
24 connected -- interconnected. And you will -- based on
25 your frac job, obviously you are going to get the virgin

[61]

1 reservoirs to participate. But if there is going to be
2 significant pressure drawdown based on fracture
3 orientation -- again, it doesn't matter if it goes this
4 way or that way if you are drilling four wells per
5 section. Half of the zones are connected, maybe, or
6 more?

7 MR. LEGRAND: No. What we found, actually, was
8 about 25 percent. You know, five out of 19 showed some
9 level of interference. And we found that to be
10 approximately 26 percent --

11 MR. HAROUNY: Okay.

12 MR. LEGRAND: -- interference on average. So
13 yes, clearly in 139-84 El Paso demonstrated that yes,
14 there is pressure communication between the wells. But
15 the key item, the key issue here is that it is not -- it
16 is not prevalent through the entire section. So in order
17 to efficiently recover the resource that's in place, you
18 know, you need additional wells. And obviously, those
19 wells are economic with the 75,000-barrel threshold.

20 MR. HAROUNY: Thank you.

21 MR. MACDONALD: Moving on to Exhibit M, then.

22 MR. GILL: Before you leave that one...

23 MR. LEGRAND: Pardon?

24 MR. GILL: May I have a question, Mr. Chairman?

25 CHAIRMAN JOHNSON: Go ahead.

[62]

1 MR. GILL: I am -- when was your 130-35 that you
2 are using, when was it drilled?

3 MR. LEGRAND: The 130 --

4 MR. GILL: I couldn't find it on your exhibit,
5 because it's probably outside the area.

6 MR. LEGRAND: Oh, yeah, it's not on this
7 exhibit.

8 MR. GILL: And the same with the 1-29C5.

9 MR. LEGRAND: I believe if we went back to the
10 cross section. Greg, do you have --

11 MR. GILL: If you could give that to me
12 sometime. If it's not available immediately --

13 MR. LEGRAND: Greg will look for that a
14 moment and --

15 MR. GILL: But my question, then, goes to
16 Exhibit L. If we could go to Exhibit L. And I'm
17 referring to the 14-7-46 -- pardon me, the 1-29C5 well.
18 In about the 30th month, you have a big drop-off in
19 pressure -- I mean, in production, and I wondered if you
20 had a corresponding drop in pressure and what explains
21 that. Typically, if you have a drop like that, it is an
22 indicator -- I'm referring to the blue line.

23 MR. LEGRAND: Umm-hmm.

24 MR. GILL: If you have a drop in something like
25 that, it can be from downhole problems, but it can also

[63]

1 be from an adjoining well in communication. And that
2 brings us to an issue of drilling unnecessary wells when
3 one well's drilling it. So I'd like you to comment on
4 that, if you would.

5 MR. LEGRAND: That particular well, I believe,
6 is the only well in that section. Yes, that is correct.
7 And so --

8 MR. GILL: What is correct?

9 MR. LEGRAND: That particular well has no
10 additional wells drilled within that 640-acre section.
11 It is -- so if you'll take a look at the map, just real
12 quickly, 129C5 is the only well drilled in Section 29.
13 So there were -- you know, there is no direct offset
14 within the section.

15 MR. GILL: That's true. But there is an offset
16 in the adjoining section. Is the communication that far?

17 MR. LEGRAND: And I can't tell you -- you know,
18 I can't say to you that it definitely is not
19 communication. However, I guess I would go back to your
20 earlier comment. I think that what we may have
21 experienced there is just a production issue or a
22 downhole issue that was later corrected.

23 MR. GILL: Well, I can't imagine there being
24 communication that far. But I have to ask that question,
25 because there must be some explanation for it.

[64]

1 What I was looking for is if the well
2 represented on the blue line on Exhibit L, on the
3 30-month place, has another well that has come on
4 production, say, a few months earlier, and then that is
5 the kind of evidence we need to know.

6 MR. LEGRAND: Right. And I can't give you an
7 answer to that at this moment; however, we will review
8 that, and we can provide that to the Board.

9 MR. GILL: But your representation, without an
10 exhibit but based on your experience, is that the
11 pressure data on the 1-29C5 is such that there's not a
12 major drop in pressure, major indicator of pressure
13 change?

14 MR. LEGRAND: I mean, that would be -- yeah,
15 that would be my, you know, my opinion on it.

16 MR. HAROUNY: May I ask?

17 CHAIRMAN JOHNSON: Go ahead.

18 MR. LEGRAND: Both of those wells were drilled
19 in 1979.

20 MR. HAROUNY: Was the well in Section 29 a Koch
21 well, or an original Texaco well?

22 MR. HINDS: I don't know the operators on that.

23 MR. HAROUNY: Because I may be able to answer
24 his question for you. If it was a Koch well, Koch did
25 not drill second wells, initially. All of the initial

[65]

1 Texaco properties were sold for that purpose, where the
2 operator selected to drill second wells on those wells.
3 And that was the only reason that they acquired the
4 interest. The Koch wells were not -- did not have second
5 wells drilled on them. They were sold subsequently to
6 various people, including Baird Resources back in 1996,
7 '95. So it was just an operator issue.

8 MR. GILL: That's all my questions,
9 Mr. Chairman.

10 CHAIRMAN JOHNSON: Okay. Go ahead.

11 MR. MACDONALD: Mr. Hinds wants to just address
12 that, if he could.

13 MR. HINDS: Just on the issue with the blue line
14 there. The 129 was completed in March of '79, the 130 --
15 35 in June of '79. So they're fairly close, three months
16 apart. You see no precipitous quick drop in the 130, so
17 I think that would clarify that that's got to be some
18 kind of mechanical issue as opposed to a communication
19 issue between those two wells.

20 MR. GILL: That answers it.

21 CHAIRMAN JOHNSON: Thank you.

22 MR. MACDONALD: All right, Mr. Chairman.

23 Now Mr. LeGrand, please direct your attention to
24 Exhibit M, and please explain to the Board its
25 significance.

[66]

1 MR. LEGRAND: Exhibit M represents the oil
2 production profile for the first 60 months and the
3 resultant economic parameters that Bill Barrett
4 Corporation expects to obtain from its drilling on both
5 the previous application lands, and also on the
6 application lands before us today. This economic
7 analysis is performed at our mean expected reserve level,
8 and -- as indicated in the table up in the upper
9 right-hand quarter there -- the level -- the reserve
10 level associated with this is 300,000 barrels of oil
11 equivalent. And it accounts for outcomes of both a
12 prolific nature and a marginal nature that are
13 encountered during the normal course of development. So,
14 you know, obviously there is variability, as we are all
15 aware. However, the economics of the mean dictate the
16 economics of the overall project.

17 Particular note should be taken in the rapid
18 two-year anticipated simple payout. And just as a note
19 here, that occurs at 75,000 barrels of oil production, or
20 approximately 87,000 barrels of equivalent oil production
21 when including associated gas. This analysis is
22 consistent with our publicly disclosed expectations by
23 the Corporation for the Blacktail Ridge project.

24 MR. HAROUNY: Do you have a comparison of this
25 decline versus wells that were acidized and not fracked?

[67]

1 MR. LEGRAND: Well, if we walk back to Exhibit
2 K, there's a couple of things that we know. Our type
3 well and -- you know, typically this is the case -- you
4 don't want to paint too rosy a picture of your economics.
5 And so our type well generate -- or recovers
6 approximately 75,000 barrels of oil in the first 24
7 months. If we look at the wells that we have used in
8 this cumulative oil comparison, you'll see that at 24
9 months, significantly greater amounts of oil have been
10 recovered -- from the neighborhood of 125,000 barrels all
11 the way to, you know -- I'm interpolating here -- but
12 about 275,000 barrels during the first 24 months. So our
13 analysis is probably a little bit on the conservative
14 side, but that's done for a purpose.

15 The point being, 75,000 barrels generates simple
16 payout. And for our mean expectation, we generate, you
17 know -- we have very, very good economics associated with
18 this project.

19 MR. MACDONALD: Mr. LeGrand, I want to point out
20 that the Division and staff memorandum address the
21 question of loss of pressure as you drill the additional
22 wells in this section. Could you please address that a
23 little bit?

24 MR. LEGRAND: Yeah. That's a very important
25 point. Thanks for bringing that up.

[68]

1 As we develop a particular area, it is both
2 operationally more efficient, and it is more efficient
3 from an estimated ultimate recovery standpoint. So from
4 a recovery of the resource in place, if we are allowed
5 the option of drilling our additional wells -- our
6 second, third, and fourth wells -- in rapid succession
7 behind the first well within a section, the operational
8 reasons are, you know, pretty obvious. Once you move a
9 rig out to a location, it's better to keep right on
10 drilling and not have to, you know, demobilize and then
11 remobilize that rig.

12 From a recovery standpoint, it's better. It's
13 better because the more wells that you have within a
14 section that are communicating within an individual
15 reservoir prior to the pressure loss, the better the
16 recovery is going to be.

17 MR. MACDONALD: All right. You've had an
18 opportunity to review the engineering exhibits that were
19 submitted in the El Paso hearing. Is that correct?

20 MR. LEGRAND: That is correct.

21 MR. MACDONALD: And can you confirm that the
22 reservoir characteristics of the Lower Green River and
23 Wasatch formations, based on the data developed to date,
24 appear analogous to those?

25 MR. LEGRAND: Yes, they do.

[69]

1 MR. MACDONALD: All right. Finally, in your
2 expert opinion, based on the data generated to date, are
3 the reservoir characteristics, again, analogous to those
4 that were already determined by the Board in the El Paso
5 Order?

6 MR. LEGRAND: Yes, I do.

7 MR. MACDONALD: And is it also your expert
8 opinion that up to four wells per section may be needed
9 to adequately drain each section in this area. Is that
10 correct?

11 MR. LEGRAND: Yes, I do.

12 MR. MACDONALD: And finally, is it your expert
13 opinion that the additional wells may be economically
14 drilled?

15 MR. LEGRAND: Yes, I do.

16 MR. MACDONALD: Mr. Chairman, that concludes my
17 examination of Mr. LeGrand.

18 CHAIRMAN JOHNSON: Mr. Donaldson?

19 MR. DONALDSON: The Division does have some
20 questions.

21 CROSS-EXAMINATION

22 BY MR. DOUCET:

23 MR. DOUCET: Dustin Doucet with the Division.

24 I've got a few questions. I'll start off easy
25 and get harder as I go -- no.

[70]

1 First one is on Exhibit I. I think I brought
2 this up in a memo. I just wanted to double check and
3 confirm.

4 Is that scale on the bottom, is that
5 1000 barrels of oil, or is it barrels of oil equivalent?

6 MR. LEGRAND: That is thousand barrels of oil.

7 MR. DOUCET: Okay. Thousand barrels of oil.

8 And kind of related to Exhibit I, which -- I'm
9 sorry -- let me jump down to Exhibit J.

10 On that, you've got your select wells
11 highlighted. Those key wells you've got are typically
12 first wells or second wells in a section. Is that
13 correct?

14 MR. LEGRAND: That is correct.

15 MR. DOUCET: How do those translate or carry
16 over to what you would expect on a
17 four-wells-per-section. Do you expect similar results,
18 and why?

19 MR. LEGRAND: Well, as I pointed out earlier,
20 the legacy wells in this area have been completed using
21 just basically acid stimulation and relatively small acid
22 jobs. Part of Bill Barrett's effort, and part of our
23 research in this area involve drilling seven wells in the
24 3 South 6 West area, or the previous application El Paso
25 lands. And completing those wells utilizing, you know,

[71]

1 propped fracture kind of simulation as opposed to just
2 acid jobs -- and in fact, we used acid spearheads on
3 them. In spite of the fact that these wells -- five of
4 them are third well per section, and two of them are
5 second well per section wells, the group of seven -- the
6 group of seven wells have an average estimated ultimate
7 recovery of 264,000 barrels of oil, and have an average
8 estimated ultimate equivalent recovery of
9 334,000 barrels. When you compare this with the
10 testimony in 139-84, that's a significantly higher or
11 better outcome for second and third wells. And we think
12 this is directly attributable to the additional money
13 that we have spent on completion and the fracture
14 stimulation -- prop fracture stimulation that we've
15 utilized.

16 We believe that that same technology can be
17 extended to the application lands. And therein lies the
18 basis for -- you know, the basis for our baseline
19 expectation within the application lands of mean recovery
20 of 287,000 barrels of oil.

21 MR. DOUCET: Okay. So kind of a follow-up -- I
22 guess kind of to what you just said there -- so these
23 select wells, you think they compare favorably to what
24 you expect in your subject lands, as well as what has
25 been seen in the overall adjacent lands in the close

[72]

1 proximity to this area?

2 MR. LEGRAND: I'm sorry, could you repeat that?

3 MR. DOUCET: Are these representative wells, I
4 guess, of the overall area, or are they more on the high
5 side of things? You mentioned in the 139-84 that they
6 are significantly higher than what they were seeing in
7 the 139-84. But are they representative of this area?
8 Are they just kind of some outliers on the higher side of
9 things?

10 MR. LEGRAND: Well, we believe they formulated
11 the basis for extension of the reservoir in 3 South 6
12 West into the areas within the application lands. And,
13 you know, they provide the incentive for moving onto
14 those lands. We believe, again, that the difference --
15 the difference here that we're going to be able to
16 realize, is going to be realized through prop and
17 fracture stimulation.

18 MR. DOUCET: And just, I think, one more
19 question.

20 Just as far as drilling infill wells in some of
21 the areas, surrounding areas, have you noticed any issues
22 like lost circulation problems while drilling where
23 something has been depleted? Has it caused you any
24 trouble?

25 MR. HINDS: In the sections that we're

[73]

1 completing, we haven't seen lost circulation. Most of
2 the lost circulation issues go up much higher. No, we
3 haven't seen that indication of the completion yet.

4 MR. DOUCET: Okay. That's all I've got.

5 CHAIRMAN JOHNSON: Mr. Donaldson, any other
6 questions?

7 MR. DONALDSON: No. The Division has no more
8 questions.

9 CHAIRMAN JOHNSON: Does the Board have other
10 questions for Mr. LeGrand?

11 MR. GILL: I have just some clarifying questions
12 on Exhibit M, just in the nomenclature that you've used.

13 MR. LEGRAND: Yes.

14 MR. GILL: On Exhibit M, let me see if I
15 understand this right. Your drilling and completion
16 total drilling cost is 3.8 million.

17 MR. LEGRAND: That is correct. And that
18 represents an average across that application area,
19 because there is a difference in total depth as you move
20 across.

21 MR. GILL: Okay. And then your gross reserves,
22 roughly 300. WI, I'm assuming, is your working interest?

23 MR. LEGRAND: That's correct. We've utilized a
24 working and net revenue interest that reflects an
25 approximation of Bill Barrett's interest in the

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1 application lands.

2 MR. GILL: So you've got a royalty rate that's
3 just a little below 20 percent on the total well?

4 MR. LEGRAND: Yes, that would be correct. The
5 100 percent net revenue interest would be 81.25.

6 MR. GILL: Your oil and gas ten-year cumulative
7 production, surprisingly is -- is that 183?

8 MR. LEGRAND: 183,000 barrels of oil, and
9 183 million cubic feet of gas.

10 MR. GILL: And then on your price, are those
11 prices before the Rockies' differential.

12 MR. LEGRAND: Yes, they are.

13 MR. GILL: What's the Rockies' differential
14 been, let's say in the last --

15 MR. LEGRAND: Sixteen to \$17, in that kind of
16 range, is what we utilize corporately for oil. And then
17 the CIG price in this particular area, I think the
18 differential to CIG is on the order of, let's say, less
19 than 25 cents.

20 MR. GILL: Say that a little louder for the
21 hearing impaired.

22 MR. LEGRAND: It's virtually zero.

23 MR. GILL: Virtually zero?

24 MR. HINDS: Yeah. We've got plenty of pipeline
25 capacity coming out of the Rockies now.

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1 (The reporter interrupted for clarification.)

2 MR. HINDS: The differential between Henry Hub
3 and CIG's come down 5 cents or less.

4 MR. GILL: Natural gas was the Rockies'
5 differential these days.

6 MR. HINDS: CIG is the Rockies. The
7 differential pertains to, like a CIG market to a Henry
8 Hub market, which is the standard. That differential is
9 down, virtually, around five percent. Sometimes it's
10 even been overturned in the last several months. We've
11 got quite a bit of pipeline capacity coming out of the
12 Rockies right now, so that depresses that differential
13 relative to Henry Hub.

14 MR. LEGRAND: And corporately, our corporation
15 utilizes West Texas Intermediate. And then we apply
16 field-level differential to West Texas Intermediate.
17 That's what I was describing as the 16 to \$17 in this
18 particular case.

19 And then corporately, we utilize a CIG price.
20 And then we index all of our field pricing to that CIG
21 price.

22 MR. GILL: Would it be fair to assume that your
23 payout in years is based on your actuals versus -- after
24 the Rockies' differential, then the numbers you are
25 showing?

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1 MR. LEGRAND: It is absolutely related to the
2 actuals, yes. We're diligent in that respect.

3 MR. GILL: Thank you. Then just a personal
4 comment, Mr. Chairman, Members of the Board, for those of
5 us that are getting older and a little sight impaired,
6 we're using our computers. And when you send the
7 exhibits by PDF, we can zoom in on that and actually read
8 things for the first time, and particularly on your land
9 map, and things like that. So I appreciate your -- at
10 least speaking for one old guy -- we appreciate having
11 those in PDF format so that we can really read them for
12 the first time. Thank you very much.

13 MR. HAROUNY: The differential that you are
14 referring to -- point of clarification -- are for Wasatch
15 yellow wax differentials, correct?

16 MR. LEGRAND: Yes, I believe that is correct.

17 MR. HAROUNY: Do you have within Cedar Rim,
18 wells that are producing black wax?

19 MR. LEGRAND: Yes, we do.

20 MR. HAROUNY: Have you deciphered the
21 differential and used an average of the two differential,
22 or you just used the differential for yellow wax, which
23 is a lot less than black wax.

24 MR. LEGRAND: What we do -- actually what we do
25 corporately is, we tie back actual prices received in the

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1 field on a per-barrel basis and compare that to the West
2 Texas Intermediate Index price. And that's due to the
3 fact that that's what's required for an SEC evaluation
4 for our corporate reserves. And we utilize the exact
5 same differentials that we utilize for corporate reserves
6 in any kind of economic analysis that we do on any of our
7 prospects or areas of development.

8 MR. HAROUNY: So it's fair to say that you've
9 used an in-house average price that you received, be it
10 black wax or yellow wax, you've averaged it out?

11 MR. LEGRAND: That is correct, yes.

12 MR. HINDS: The production out of this area is
13 predominately -- the vast majority is yellow wax. Our
14 buyers are paying us yellow wax for the entire loads,
15 four points, you know, 95 to 120 degrees. So they are
16 paying us yellow wax, and we're applying yellow wax
17 differential.

18 MR. HAROUNY: But anything within the
19 transitional zone could be either black wax or yellow
20 wax, so there's black wax produced.

21 MR. HINDS: There's a very minimal amount of
22 black wax produced. Like I said, the buyers come in
23 testing and paying us yellow wax and hauling it off in
24 single loads -- just considered yellow wax production.

25 MR. HAROUNY: I just wanted to make sure the

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1 differential was not. Thank you.

2 MR. MACDONALD: Mr. Chairman, that would
3 conclude our presentation-in-chief. And I'd like to move
4 for admission of exhibits A through M, inclusive,
5 including the supplement to Exhibit D.

6 CHAIRMAN JOHNSON: Mr. Donaldson.

7 MR. DONALDSON: The Division has no objection to
8 the admission of those.

9 CHAIRMAN JOHNSON: Does the Board have any
10 objections? Then all those exhibits are entered.

11 MR. MACDONALD: All right. Mr. Chairman, I
12 would just like to reserve a little bit of time for
13 rebuttal, if necessary, based on the Division and any
14 other statements made.

15 CHAIRMAN JOHNSON: That will be fine.
16 Mr. Donaldson?

17 MR. DONALDSON: Gil Hunt, on behalf of the
18 Division, would like to make a statement.

19 CHAIRMAN JOHNSON: Would you like to have him
20 sworn, or is he going to be -- is he trustworthy?

21 MR. DONALDSON: Does the Board feel that that's
22 necessary?

23 CHAIRMAN JOHNSON: It all depends on what he
24 says.

25 MR. DONALDSON: I think he's going to summarize

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1 the Division's perspective on the application.

2 CHAIRMAN JOHNSON: Okay.

3 MR. DONALDSON: And just make a Division
4 recommendation -- or summarize the Division's
5 recommendation.

6 MR. JENSEN: If it's going to be a part of the
7 record, though, doesn't it have to be sworn?

8 CHAIRMAN JOHNSON: Let's swear him.

9 THE REPORTER: You do solemnly swear the
10 testimony you are about to give will be the truth, the
11 whole truth, and nothing but the truth so help you God?

12 MR. HUNT: Yes.

13 CHAIRMAN JOHNSON: Go ahead, Mr. Hunt.

14 MR. HUNT: Okay. Thank you. Just to summarize.

15 CHAIRMAN JOHNSON: Would you please identify
16 yourself for the record.

17 MR. HUNT: Gil Hunt. I'm the associate director
18 for Oil and Gas, for the Division of Oil, Gas and Mining.

19 CHAIRMAN JOHNSON: Thank you.

20 MR. HUNT: Just to summarize the Division's
21 recommendation on this matter, we followed our usual
22 procedure to review the submitted exhibits and Request,
23 and resulted in a memo dated February 10, 2010. In that
24 memo we had a couple of concerns that we noted, one
25 being, as far as well control in some of the area that

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1 they want to extend the '84 Order into, and also some of
2 the comparison production recovery from wells within the
3 '84 area versus the area where they want to extend it
4 into.

5 We think that through testimony today they have
6 covered that discrepancy, and the continuity exists
7 between the two areas -- both geologically and through
8 the engineering testimony. And that the increased
9 production, due to the fracturing and better completion
10 technology, explains some of the recovery discrepancy.

11 And so, taking that into consideration, we think
12 they've answered our concerns. And we would recommend
13 that the Board approve this Request.

14 CHAIRMAN JOHNSON: Does the Board have any
15 questions for Mr. Hunt?

16 Mr. Donaldson, excuse me, did you have any
17 questions for Mr. Hunt?

18 MR. DONALDSON: No. I have no questions. And I
19 think this concludes the Division's side.

20 CHAIRMAN JOHNSON: Thank you.

21 Mr. MacDonald.

22 MR. MACDONALD: No questions, Mr. Chairman.

23 CHAIRMAN JOHNSON: Okay. Then I think we're
24 back to you, Mr. MacDonald.

25 MR. MACDONALD: Just again, I think the Division

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1 is now satisfied with it. Bottom line from a layman's
2 standpoint, the Board has already had numerous hearings
3 about the Lower Green River/Wasatch, the El Paso hearing
4 held in 2008. You can see the lands are right in the
5 middle of what's expected here.

6 The analogies have been proven, both through the
7 testimony and exhibits, both from a geologic and
8 engineering standpoint. We're talking the same reservoir
9 here, same characteristics. And it's only appropriate
10 for the Board to extend the spacing, both from a
11 standpoint of being consistent with development in the
12 field, and also for the protection of correlative rights.

13 Again, because of the unspaced areas, those
14 owners should be protected, both from the conservation
15 mechanism, and also for the protection of the correlative
16 rights.

17 And that's why we believe the Request should be
18 granted. So again, thank you for your time and
19 attention.

20 CHAIRMAN JOHNSON: Thank you. Before we adjourn
21 to deliberate on this matter, is there anyone else
22 present who would like to address the Board on this
23 matter? Seeing no one, then we will take a recess to
24 deliberate. And we will be back as soon as we can.
25 Thank you.

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1 (The Board broke to deliberate from
2 11:05 a.m. to 11:24 a.m.)

3 CHAIRMAN JOHNSON: The Board decided unanimously
4 to grant the request.

5 And Mr. MacDonald, will you prepared the Order,
6 please?

7 MR. MACDONALD: Certainly, Mr. Chairman.

8 CHAIRMAN JOHNSON: Thank you very much. Thank
9 you for your presentation.

10 (The proceedings concluded at 11:24 a.m.)

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